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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/617,120	07/14/2000	Yoko Katsuya	925-151	5860

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EXAMINER

NGUYEN, DUNG T

ART UNIT PAPER NUMBER

2871

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/617,120

Applicant(s)

KATSUYA, YOKO

Examiner

Dung Nguyen

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-18 and 25-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-18 and 25-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Applicant's amendment dated 12/16/2003 has been received and entered.

By the amendment, claims 8-18, 25-32 and newly added claims 33-52 are now pending in the application.

Applicant's arguments dated 12/16/2003 have been considered but are moot in view of the new ground(s) of rejection.

Double Patenting

1. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

2. Claims 49-52 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 42-45. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 41 and 47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 41 and 47, it is confusing and unclear how the auxiliary capacitor in such above claims can be the same as in the based claims 33 and 42. In particular, claims 33 and 42 recite an auxiliary capacitor forming by a pixel electrode and an addition electrode, while claims 41 and 47 recite an auxiliary capacitor forming by the addition electrode and a gate line. In other words, the auxiliary capacity in claims 41, 47 are different from the auxiliary capacitor in claims 33, 42.

Correction to the language is suggested to clarify the claimed subject matter.

5. Claim 25 recites the limitation "the another electrode" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 8-10, 12, 15-18, 26, 29-38, 42-45 and 48-52 are rejected under 35 U.S.C. 102(e) as being anticipated by Ohtani et al., US Patent No. 6,690,031.

The above claims are anticipated by Ohtani et al. figures 1, 5 and accompany text which disclose an active matrix liquid crystal display (LCD) device comprising:

an insulating substrate (101);

a gate line (502) and a source line (503);

a thin film transistor (102) as claimed;

a transparent conductive pixel electrode (108) having a specific resistance of not greater than $1\text{m}\Omega\text{cm}$ (e.g., ITO) and connecting to the TFT (figure 1);

a liquid crystal layer inherently forming between the TFT substrate and an opposite substrate (according to an LCD device);

a supplementary capacitance (auxiliary capacitor) (109) being provided by the pixel electrode (108), a supplementary capacitance use transparent insulating film (silicon nitride layer 105) formed under the pixel electrode and a transparent conductive (ITO) common electrode (104), wherein a difference between a refractive index of the auxiliary capacitor use transparent insulating (i.e., refractive index of the silicon nitride) and a refraction index of the pixel electrode/the common electrode (i.e., refractive index of the ITO) is not greater than 0.6;

a thickness d of the auxiliary capacitor use transparent insulating satisfies the equation $d = \lambda / (2 * n) * m$, wherein λ is a wavelength of transmission light (e.g., visible light), n is a refractive index (see col. 4, ln. 67).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 11, 25, 27-28, 39-41 and 46-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtani et al., US Patent No. 6,690,031, in view of Zhang et al., US Patent No. 5,982,460.

Regarding the above claims, Ohtani et al. disclosed the claimed invention as described above except for the pixel electrode and common electrode are cover at least portions of the gate/source bus line and the common electrode is arranged between the gate/source bus line and the pixel electrode. Zhang et al ('460) do discloses that a pixel electrode (24a/24b) and a common electrode (22) which constitution a capacitor (25a/25b) can be covered a gate bus line as well as a source bus line (figures 1E and 2C-2D). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to form a common electrode covering the gate bus line and the source bus line as shown by Zhang et al. in order to protect a wiring electrode (e.g., gate bus line and/or source bus line and/or TFT) underneath and protect signals on each bus line not being applied to the pixel electrode (see abstract).

10. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtani et al., US Patent No. 6,690,031, in view of Yamazaki, US Patent No. 6,482,684.

Regarding claims 13-14, Ohtani et al. disclosed the claimed invention as described above except for the active layer made of polysilicon by utilizing a catalytic effect of an introduced catalytic element. Yamazaki discloses a TFT having an active layer made of polysilicon by utilizing a catalytic effect of an introduced catalytic element (see abstract), as a switching element in a pixel circuit as well as a driver circuit (figure

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6). Therefore, it would have been obvious to one skilled in the art the time of the invention was made to use a TFT element having a polysilicon active layer for a pixel circuit and a driver circuit, in which the polysilicon active layer crystallized by utilizing a catalytic effect of an introduced catalytic element as shown by Yamazaki in order to promote crystallization (high crystallization) in a TFT element (see abstract).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Nguyen whose telephone number is 571-272-2297. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DN
03/18/2004


Dung Nguyen
Primary Examiner
Art Unit 2871